THE OCCURRENCE OF *AEDES (OCHLEROTATUS) THELCTER* DYAR IN THE FLORIDA KEYS [1]

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Dyar (1928) and Matheson (1944) have recorded *Aedes thelcter* Dyar as a relatively rare mosquito of Texas. This species has been reported by entomologists at the Texas State Health Department (1944) as breeding in temporary rain pools in the Lower Rio Grande Valley and up the coast as far north as Nueces County, Texas, with occasional specimens collected in the southwestern counties. The largest numbers have been taken in light traps around Corpus Christi, Texas.

The first positive record of *A. thelcter* Dyar in Florida is that of a series of four males and four females reared from larvae collected on Long Key, Monroe County, December 5, 1947. The breeding place was a temporary rain pool formed by a shallow depression in the Key Largo limestone strata. According to Cooke (1945) these strata were originally coral reefs along the outer edge of the Floridian Plateau which are characteristic of the Upper Keys region extending from Sands Key to Loggerhead Key on the west. Abundant growth of Florida poisontree (*Metopium toxiferum* (L.) Krug and Urban), gumbo limbo (*Bursera simaruba* (L.) Sarg.), scrub pithecellobium (*Pithecellobium unguis-cati* (L.) Benth), boxleaf eugenia (*Eugenia myrtoides* Poir.), century plants (*Agava spp.*) and several species of tropical vines surrounding the pool provided a canopy of dense shade. The pool, located in the inner edge of a buttonwood (*Conocarpus erecta* L.) transition zone between a hardwood forest and a black mangrove (*Avicennia nitida* Jacq.) brackish-swamp, was filled with a thick mat of purslane sesuvium (*Sesuvium portulacastrum* L.). It was, however, apparently free of permanent aquatic vegetation. Century plants were abundant around the borders and in the shallow areas of the pool. These plants, common over the forest floor in this area, are typical of xerophytic conditions but are tolerant to temporary floodings. Holes of the land-crab were prevalent in the depression. Tested samples of the marl-like soil from the breeding site gave a pH reading of 6.2 which is more acid than is usual for mosquito breeding areas of the Florida Keys and may be attributed in part to the large quantity of leaf mold present in the vicinity. Here, *thelcter* occurred in association with *Psorophora johnstonii* (Grabham), *Psorophora ferox* (Humbolt), *Deinocerites cancer* Theobald, *Aedes tortilis* Theobald and an undetermined species of *Aedes*. Subsequent collections of mosquitoes from the pool revealed the presence of *Aedes atlanticus* Dyar and Knab, *Aedes taeniorhynchus* (Wiedemann), *Aedes sollicitans* (Walker), *Psorophora confinnis* (Lynch-Arribalzaga) and *Psorophora howardii* (Coquillett).

From December 5 to December 29, 1947, a total of 137 larvae and three pupae were collected from the Long Key pool from which seventeen males and ten females were reared. Two females were taken in biting collections. During the same period seventeen larvae were collected at Rock Harbor (Key Largo), Monroe County, from two temporary rain pools adjacent to larger permanent pot holes in the Conocarpus transition zone. The breeding sites compared favorably with that on Long Key with few exceptions, the pools being void of forest-floor vegetation and the surrounding trees providing an absolute shade. Numerous col-

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lections of larvae and adult mosquitoes have been made during the period January to June, 1948, without further evidence of *thelcter* breeding on Long Key or at Rock Harbor.

Reared males and females with associated larval and pupal skins were submitted to Dr. Alan Stone, U. S. National Museum, who confirmed the determination of *A. thelcter* Dyar after comparison with available specimens of *thelcter* from Texas and *Aedes keyensis* Buren (1947) from Florida. Appreciation is also expressed to Dr. Harry D. Pratt for the loan of larvae and adult females of Texas *thelcter* from the collection of the Communicable Disease Center, U. S. Public Health Service, and for his opinion regarding the determination of *thelcter* and the taxonomic validity of *keyensis,* and to S. A. Sanitarian (R) D. C. Thurman, Jr., U. S. Public Health Service, Communicable Disease Center Activities, for helpful guidance in all phases of the study.

It is the belief of Dr. Stone, Dr. Pratt, Mr. Thurman and the authors that *A. thelcter* Dyar and *A. keyensis* Buren are synonymous. Thus, the initial collection record for *thelcter* in Florida is that of two females taken in a light trap at Key West, Monroe County, October 14, 1946 (Fernandez), as reported by Buren (1947).*

The distribution now is known to include the Lower Keys, described by Cooke (1945) as a narrow chain of islands formed from Miami öolitic limestone stretching from Bahia Honda to Key West.

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* Twelve additional light trap records of *thelcter* from Marathon and Key West (recorded by Buren as *keyensis)* are in the unpublished records of the U. S. Public Health Service, Quarantine Station, for the months of June and July, 1947. Two collections of *thelcter* from Vaca Key in June and October, 1947, were made in light traps operated by the Florida State Board of Health.

NOTES ON MOSQUITO COLLECTIONS IN PENNSYLVANIA AND CANADA DURING 1948

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While observing the effect of aerial spraying of DDT for Gypsy Moth control in forest areas near Wilkes Barre, Pennsylvania, during May, 1948, the writer obtained the following new records of mosquitoes for Pennsylvania:

Aedes (Ochlerotatus) communis (De Geer)—May 6, a collection consisting of 25 larvae from a deep woodland pool in a coniferous forest in Bear Creek Township, Luzerne County.

Aedes (Ochlerotatus) implacabilis (Walker)—May 4, a collection consisting of 13 larvae from a temporary pool in an

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